

### Amendments to the Claims

1-14. (Cancelled).

15. (Currently Amended): A liquid crystal display device, comprising:  
an alignment layer comprising constituent materials, ~~the constituent materials~~  
~~having a stoichiometric relationship configured to provide a given pretilt angle, wherein~~  
~~the stoichiometric relationship is configured by introducing an amount of material to adjust~~  
~~a stoichiometric ratio of the constituent materials, the amount determined to provide the~~  
~~given pretilt angle~~the constituent materials having a stoichiometric ratio adjusted to  
provide a given pretilt angle; and  
liquid crystal material in contact with the alignment layer.

16. (Original): The device as recited in claim 15, wherein the material includes  $\text{SiC}_x$  wherein x is adjusted to provide the stoichiometric relationship.

17. (Previously Presented): The device as recited in claim 15, wherein the material includes silicon oxynitride.

18. (Previously Presented): The device as recited in claim 15, wherein the material includes a material having Pi-electrons.

19. (Previously Presented): The device as recited in claim 15, wherein the alignment layer includes a tilted homeotropic alignment layer.

20. (Currently Amended): A liquid crystal display device, comprising:

an ion beam-irradiated alignment layer formed on a substrate, the alignment layer comprising constituent materials, the constituent materials having a stoichiometric relationship configured to provide a given pretilt angle, wherein a non-rubbing ion beam irradiation is employed on the surface of the alignment layer to control the uniformity of the pretilt angle having a stoichiometric ratio adjusted to provide an adjusted pretilt angle;  
and

liquid crystal material in contact with the alignment layer.

21. (New): A liquid crystal display device, comprising:

an alignment layer comprising constituent materials, the alignment layer having a preexisting pretilt angle;

an amount of material for adjusting a stoichiometric ratio of the constituent materials of the alignment layer, wherein the amount is determined to provide a given pretilt angle of the alignment layer different than the preexisting pretilt angle of the alignment layer; and

liquid crystal material in contact with the alignment layer.